SEPTEMBER 2013 **FLSA: EXEMPT**

TRAFFIC ENGINEERING ANALYST

DEFINITION
Manages, supervises, and makes recommendations on City traffic engineering activities; performs directly related work as required.

SUPERVISION RECEIVED AND EXERCISED
Receives general supervision from assigned supervisory or management personnel. Exercises general and direct supervision over assigned staff.

CLASS CHARACTERISTICS
The principal function of an employee in this class is to manage, supervise, and provide recommendations for all traffic engineering activities for the City. The work is performed under the supervision and direction of the City Engineer/Public Works, but considerable leeway is granted for the exercise of independent judgment and initiative. The nature of the work performed requires an employee in this class to establish and maintain effective working relationships with all others contacted in the course of work. The principal duties of this class are performed in a general office environment and in the field, involving exposure to a wide variety of weather, terrain, and safety conditions.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)
Management reserves the right to add, modify, change or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Manages, installs, maintains, and operates the City's traffic signal system, including monitoring the traffic signal computer for reports and alarms, conducting annual testing and maintenance operations, conducting timing studies, repair, maintenance, and replacement of hardware and software, and acting as an expert witness in lawsuits involving traffic engineering and signals;
- Conducts traffic engineering studies to determine the need for traffic control devices, including conducting radar speed surveys to set appropriate speed limits, conducting and overseeing parking studies to determine need for parking controls, conducting pedestrian studies to determine the need for crosswalks, collecting and analyzing traffic data, and producing written reports recommending control devices based on current industry standards;
- Investigates and recommends improvements for traffic related field problems, including participating with the Traffic Division of the Police Department in reviewing traffic collision reports and traffic related matters, responding to complaints from the public regarding problem locations, and producing specifications;
- Participates in development of the Departmental and the City's traffic control system capital improvement budget, including preparing applications for grant funding of traffic engineering related projects and activities, managing funded projects to completion, identifying necessary future projects, and recommending the purchase of necessary equipment, materials, and supplies;

- Responds to inquiries, requests, and complaints from the public regarding traffic control devices, speed control, street lighting, and related concerns, including participating at the Engineering counter to personally respond to requests and complaints from the public, and preparing encroachment and transportation permits;
- Participates with other agencies and private consultants on traffic engineering projects, including acting as the City's representative on all traffic matters, participating on committees representing the City on traffic issues, and collaborating with consultants on City and private traffic projects;
- Serves as the Department representative on the Eureka Parking Place Commission, including developing agendas, conducting research on parking items, and acting as first contact for members of the public with parking concerns;
- Determines the scope of traffic engineering projects, including preparing requests for proposals and contracts for consulting services, reviewing plans and studies of consulting traffic engineers and private contractors, making technical engineering decisions, and ensuring compliance with technical criteria and City standards;
- Prepares progress reports on traffic engineering projects under construction, including maintaining records of changes and field notes;
- Keeps immediate supervisor and designated others accurately informed concerning work progress, including present and potential work problems and suggestions for new or improved ways of addressing such problems;
- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments in assigned work areas;
- Responds to questions and comments from the public in a courteous and timely manner;
- Communicates and coordinates regularly with appropriate others to maximize the effectiveness and efficiency of interdepartmental operations and activities;
- Performs other directly related duties consistent with the role and function of the classification.

QUALIFICATIONS

Knowledge of:

- Principles and procedures of traffic engineering;
- Applicable laws and regulatory codes relevant to traffic engineering;
- Methods, materials, and techniques used in construction and operation of traffic control systems;
- Modern developments, current literature, and sources of information regarding traffic signal systems and traffic engineering;
- Principles of advanced mathematics and their application to traffic engineering work;
- Traffic signal operation

Ability to:

Interface with private agencies, organizations, groups, and the general public in an appropriate and timely manner;

- Prepare plans and drawings neatly and accurately;
- Be thorough and patient while conducting studies, working with others, and on traffic signal systems;
- Perform technical research and solve traffic engineering problems;

- Conduct comprehensive traffic engineering studies, and prepare reports with recommendations;
- Apply City traffic engineering policies and procedures;
- Prepare, understand, and interpret engineering construction plans, specifications, and other contract documents;
- Establish and maintain cooperative working relationships with those contacted in the course of work;
- Perform traffic engineering design computations, and check, design, and prepare traffic engineering plans and studies;
- Communicate effectively with others, both orally and in writing, using both technical and non-technical language;
- Understand and follow oral and/or written policies, procedures, and instructions;
- Prepare and present accurate and reliable reports containing findings and recommendations;
- Operate or quickly learn to operate a personal computer using standard or customized software applications appropriate to assigned tasks;
- Use logical and creative thought processes to develop solutions according to written specifications and/or oral instructions;
- Perform a wide variety of duties and responsibilities with accuracy and speed under the pressure of time-sensitive deadlines;
- Willingness to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology; Integrity, ingenuity, and inventiveness in the performance of assigned tasks.

Education and Experience:
Any combination of training and experience which would provide the required knowledge, skills and abilities is qualifying. A typical way to obtain the required qualifications would be:

- Associate Degree in Civil or Traffic Engineering, Mathematics, and/or Engineering, or in a related field; and
- Considerable (four to six years) experience in a traffic related field.

License:

- Valid California class C driver's license with satisfactory driving record.

PHYSICAL DEMANDS
Sufficient clarity of speech and hearing or other communication capabilities, with or without reasonable accommodation, to enable the employee to communicate effectively; Sufficient vision or other powers of observation, with or without reasonable accommodation, to enable the employee to review a wide variety of materials in electronic or hard copy form; Sufficient manual dexterity, with or without reasonable accommodation, to enable the employee to operate a personal computer, telephone, and other related equipment; Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, to enable the employee to safely lift, move, or maneuver whatever may be necessary to successfully perform the duties of their position; Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, to enable the employee to efficiently function in a general office environment and in the field.

ENVIRONMENTAL ELEMENTS

Employees work partially indoors and partially outdoors and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives, and contractors in interpreting and enforcing departmental policies and procedures.